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14		DISTRICT COLIDT
15		DISTRICT COURT
16	NORTHERN DISTR	ICT OF CALIFORNIA
17		N 2 20 CV 05640 FMC
18	EPIC GAMES, INC.,	No. 3:20-CV-05640-EMC
19	Plaintiff,	DECLARATION OF ANDREW GRANT IN SUPPORT OF PLAINTIFF
20	VS.	EPIC GAMES, INC.'S MOTION FOR A TEMPORARY RESTRAINING ORDER
21	APPLE INC.,	AND ORDER TO SHOW CAUSE WHY A PRELIMINARY INJUNCTION
22	Defendant.	SHOULD NOT ISSUE
23		Date: August 17, 2020 Courtroom: 5, 17th Floor
24		Judge: Hon. Edward M. Chen
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	Declaration of Andrew Grant	Case No. 3:20-cv-05640

I, Andrew Grant, declare as follows:

- 1. I am a Technical Director of Engineering at Epic Games, Inc. ("Epic"). I submit this declaration in support of Epic's Motion for a Temporary Restraining Order and Order to Show Cause Why a Preliminary Injunction Should Not Issue.
- 2. I have worked as a Technical Director of Engineering at Epic for five years. In this role, I oversee the coding and programming of various projects at Epic. Prior to working at Epic, I worked at Lucasfilm for more than six years supervising software engineering projects. In total, I have 22 years of experience working as a software engineer.
- 3. Before Apple will allow an app to be distributed on its App Store, the app must be submitted to Apple for review and approval. This process applies to new apps and to app updates including new code.
- 4. App developers can and do make real-time changes to an approved app without adding new code and without requiring users to download a new update from the App Store. There are a number of names and methods for this process including feature flag, hot patch, bug flag, hotfix, feature toggle and server based update, but each describes the same process. For the purpose of this discussion, I will refer to the process generally as a "hotfix", which is how the process is typically referred to within Epic.
- 5. Hotfixes work by coding the app to check for new content that is available on the developer's server or new instructions on what to make accessible in the app. Hotfixes are commonplace, including for apps designed to run on Apple's mobile devices.
 - 6. Many apps run a check for hotfixes as part of their normal startup process.
- 7. A developer can use hotfixes to make accessible content or features in an app that are in the code but are not initially available to users. The content or feature is accessible only after the app checks the developer's server and is "notified" by the server to display the new content or feature. For example, game developers often include new characters, new items, or new levels in the code submitted to Apple, which are not initially available to users but become accessible at a later date, once the app is "notified" by the game developer's server that it should

make these features accessible.

- 8. As discussed in more detail below, hotfixes are normal features of many apps in the App Store and a common feature in app design. Many apps, including games, connect to the developer's servers upon startup in order to obtain new content and accessibility instructions. I believe Apple is aware of this hotfix process occurring in numerous apps, including *Fortnite*. *Fortnite* has used hotfixes to enable hundreds of new features and content elements since it was first added to the App Store. Many of these hotfixes were not enabled in builds that were submitted to Apple for review or approval and to my knowledge, Apple has never objected to the use of this process in *Fortnite* in the past. I am not aware of Apple objecting to the use of hotfixes for other apps either.
- 9. Using a hotfix has various benefits to an app developer. For example, hotfixes permit developers to test new features or content, and to easily roll out additional features to users.
- 10. The *Fortnite* app has included a hotfix check upon startup since it was first submitted to Apple. When *Fortnite* is opened on an iOS device, the application connects to Epic's servers to check for new content to download or for "notice" to make pre-existing functionality or content accessible. Since *Fortnite* was launched on the App Store three years ago, Epic has used hotfixes to make all sorts of content and features accessible to players including: concerts, season ending features, special seasonal promotions, and others.
- 11. Hotfixes are so commonplace that there are companies that specialize in developing software to assist app developers in implementing them, such as Optimizely and CloudBees.
- 12. On August 3, 2020, Epic submitted Version 13.40 of *Fortnite* for review by Apple for distribution through the App Store. This version of *Fortnite* included a payment process interface that could provide users with multiple options for processing in-app payments. During the startup process Version 13.40 queried Epic's servers for information about which payment processing options were available. If the server informed the app that only one option was available, then users making in-app purchases would see a screen with that option and continue

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with the purchase using that option. If the server instead informed the app that more than one option was available, then users making in-app purchases would see a screen asking them to select a payment processor.

- 13. Beginning on the morning of August 13, 2020, when the *Fortnite* app on iOS devices queried Epic's servers as to how many payment processing options were available, the servers informed the app that there were two options—Apple's In-App Purchase and Epic's direct payment. Accordingly, the *Fortnite* app displayed to users making in-app purchases a screen giving them that choice. Epic made this choice of payment processors accessible to users through a commonplace hotfix: the code performed the same server check that it had done previously and upon receiving notice of the two payment options, the code made both options accessible to users. Epic did not download any executable code or interpreted code to the *Fortnite* app as part of the hotfix that made the payment options available.
- 14. Later that morning, Apple removed *Fortnite* from the App Store. Apple then posted two notices to the Resolution Center in App Store Connect, which is the platform through which Apple communicates with software developers who are members of Apple's Developer Program—one on August 13 and another on August 14. Attached hereto as **Exhibit A** is a true and correct copy of Apple's August 13, 2020 notice. That notice, which was posted at 11:22 a.m. Pacific time on August 13, 2020, stated: "We have determined that your app is in violation of the App Store Review Guidelines detailed below. For these reasons, your app has been removed from the App Store until we receive an update that is compliant with the App Store Review Guidelines." Ex. A.
- 15. The second notice, which was posted at 12:04 a.m. Pacific time on August 14, 2020, stated that Apple "identified several violations of the Apple Developer Program License Agreement" and that Epic's "membership in the Apple Developer Program is suspended". Declaration of Timothy Sweeney, dated August 17, 2020, Ex. B. The notice also stated that Epic's "Apple Developer Program account will be terminated if the violations set forth below are not cured within 14 days", and that if Epic's account is terminated, it "may no longer submit apps to the App Store" and "apps still available for distribution will be removed". Id. And, although

1	the notice was posted to the Epic Developer account that submitted Fortnite, the notice stated that	
2	upon termination of Epic's account, Epic will "lose access [to a]ll Apple software, SDKs,	
3	APIs, and developer tools", and specifically references harm to Epic's development of the <i>Unreal</i>	
4	Engine, which is handled through a separate Apple Developer Program account.	
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6	Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true	
7	and correct and that I executed this declaration on August 17, 2020 in Holly Springs, North	
8	Carolina.	
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10	/s/Andrew Grant	
11	Andrew Grant	
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I hereby attest that I have on file all holographic signatures corresponding to any signatures indicated by a conformed signature (/s/) within this e-filed document. /s/ Paul J. Riehle Paul J. Riehle